The New York Times
nytimes.com

March 2, 2008

Teaching Boys and Girls Separately

By ELIZABETH WEIL

On an unseasonably cold day last November in Foley, Ala., Colby Royster and Michael Peterson, two students in William Bender's fourth-grade public-school class, informed me that the class corn snake could eat a rat faster than the class boa constrictor. Bender teaches 26 fourth graders, all boys. Down the hall and around the corner, Michelle Gay teaches 26 fourth-grade girls. The boys like being on their own, they say, because girls don't appreciate their jokes and think boys are too messy, and are also scared of snakes. The walls of the boys' classroom are painted blue, the light bulbs emit a cool white light and the thermostat is set to 69 degrees. In the girls' room, by contrast, the walls are yellow, the light bulbs emit a warm yellow light and the temperature is kept six degrees warmer, as per the instructions of Leonard Sax, a family physician turned author and advocate who this May will quit his medical practice to devote himself full time to promoting single-sex public education.

Foley Intermediate School began offering separate classes for boys and girls a few years ago, after the school's principal, Lee Mansell, read a book by Michael Gurian called "Boys and Girls Learn Differently!" After that, she read a magazine article by Sax and thought that his insights would help improve the test scores of Foley's lowest-achieving cohort, minority boys. Sax went on to publish those ideas in "Why Gender Matters: What Parents and Teachers Need to Know About the Emerging Science of Sex Differences." Both books feature conversion stories of children, particularly boys, failing and on Ritalin in coeducational settings and then pulling themselves together in single-sex schools. Sax's book and lectures also include neurological diagrams and scores of citations of obscure scientific studies, like one by a Swedish researcher who found, in a study of 96 adults, that males and females have different emotional and cognitive responses to different kinds of light. Sax refers to a few other studies that he says show that girls and boys draw differently, including one from a group of Japanese researchers who found girls' drawings typically depict still lifes of people, pets or flowers, using 10 or more crayons, favoring warm colors like red, green, beige and brown; boys, on the other hand, draw action, using 6 or fewer colors, mostly cool hues like gray, blue, silver and black. This apparent difference, which Sax argues is hard-wired, causes teachers to praise girls' artwork and make boys feel that they're drawing incorrectly. Under Sax's leadership, teachers learn to say things like, "Damien, take your green crayon and draw some sparks and take your black crayon and draw some black lines coming out from the back of the vehicle, to make it look like it's going faster." "Now Damien feels encouraged," Sax explained to me when I first met him last spring in San Francisco. "To say: 'Why don't you use more colors? Why don't you put someone in the vehicle?' is as discouraging as if you say to Emily, 'Well, this is nice, but why don't you have one of them kick the other one — give us some action.' "

During the fall of 2003, Principal Mansell asked her entire faculty to read "Boys and Girls Learn Differently!" and, in the spring of 2004, to attend a one-day seminar led by Sax at the school, explaining boys' and girls' innate differences and how to teach to them. She also invited all Foley Intermediate School parents to a meeting extolling the virtues of single-sex public education. Enough parents were impressed that when Foley Intermediate, a school of 322 fourth and fifth graders, reopened after summer recess, the school had four single-sex classrooms: a girls' and a boys' class in both the fourth and fifth grades. Four classrooms in each grade remained coed.

Separating schoolboys from schoolgirls has long been a staple of private and parochial education. But the

idea is now gaining traction in American public schools, in response to both the desire of parents to have more choice in their children's public education and the separate education crises girls and boys have been widely reported to experience. The girls' crisis was cited in the 1990s, when the American Association of University Women published "Shortchanging Girls, Shortchanging America," which described how girls' self-esteem plummets during puberty and how girls are subtly discouraged from careers in math and science. More recently, in what Sara Mead, an education expert at the New America Foundation, calls a "man bites dog" sensation, public and parental concerns have shifted to boys. Boys are currently behind their sisters in high-school and college graduation rates. School, the boy-crisis argument goes, is shaped by females to match the abilities of girls (or, as Sax puts it, is taught "by soft-spoken women who bore" boys). In 2006, Doug Anglin, a 17-year-old in Milton, Mass., filed a civil rights complaint with the United States Department of Education, claiming that his high school — where there are twice as many girls on the honor roll as there are boys — discriminated against males. His case did not prevail in the courts, but his sentiment found support in the Legislature and the press. That same year, as part of No Child Left Behind, the federal law that authorizes programs aimed at improving accountability and test scores in public schools, the Department of Education passed new regulations making it easier for districts to create single-sex classrooms and schools.

In part because of these regulations and in part because of a mix of cultural and technological forces — ranging from the growth of brain-scan research to the increased academic pressures on kindergarteners and a chronic achievement gap between richer and poorer students and between white and minority students — new single-sex public schools and classrooms are opening at an accelerating pace. In 1995, there were two single-sex public schools operating in this country. Currently, there are 49, and 65 percent of those have opened in the last three years. Nobody is keeping exact count of the number of schools offering single-sex classrooms, but Sax estimates that in the fall of 2002, only about a dozen public schools in the United States offered any kind of single-sex educational options (excluding schools which offered single-sex classrooms only in health or physical education). By this past fall, Sax says, that number had soared to more than 360, with boys- and girls-only classrooms now established in Cleveland; Detroit; Albany; Gary, Ind.; Philadelphia; Dallas; and Nashville, among other places. A disproportionate number of the schools are in the South (where attitudes toward gender roles tend to be more conservative) or serve disadvantaged kids. Sax claims that "many more are in the pipeline for 2008-2009."

Among advocates of single-sex public education, there are two camps: those who favor separating boys from girls because they are essentially different and those who favor separating boys from girls because they have different social experiences and social needs. Leonard Sax represents the essential-difference view, arguing that boys and girls should be educated separately for reasons of biology: for example, Sax asserts that boys don't hear as well as girls, which means that an instructor needs to speak louder in order for the boys in the room to hear her; and that boys' visual systems are better at seeing action, while girls are better at seeing the nuance of color and texture. The social view is represented by teachers like Emily Wylie, who works at the Young Women's Leadership School of East Harlem (T.Y.W.L.S.), an all-girls school for Grades 7-12. Wylie described her job to me by saying, "It's my subversive mission to create all these strong girls who will then go out into the world and be astonished when people try to oppress them." Sax calls schools like T.Y.W.L.S. "anachronisms" — because, he says, they're stuck in 1970s-era feminist ideology and they don't base their pedagogy on the latest research. Few on the other side want to disparage Sax publicly, though T.Y.W.L.S.'s founder, Ann Tisch, did tell me pointedly, "Nobody is planning the days of our girls around a photograph of a brain."

The two camps face a common enemy in the A.C.L.U., which opposes all single-sex public education. (When I asked a lawyer at the A.C.L.U.'s Women's Rights Project why, she said, "Have you ever heard of Title IX?" referring to the 1972 Education Amendments that outlaw all discrimination in educational programs on the basis of sex.) But that hasn't brought the two sides together. "What kind of message does it give when you tell

a group of kids that boys and girls need to be separated because they don't even see or hear alike?" asks Rosemary Salomone, a legal scholar at St. John's University School of Law. Salomone is especially invested in the debate, as she provided support to T.Y.W.L.S. before it opened in 1996 and was subsequently tapped by the United States Department of Education to draft the revised regulations that made it easier for districts to separate boys from girls. Those regulations now require that a district "provide a rationale," review its program every two years and ensure that enrollment in single-sex classrooms is voluntary. When Salomone revised the regulations, she thought they would usher in a flurry of schools of the T.Y.W.L.S. — not the Sax — variety. She was wrong. "As one of the people who let the horse out the barn, I'm now feeling like I really need to watch that horse," Salomone told me over lunch near her home in Rye, N.Y., last month. "Every time I hear of school officials selling single-sex programs to parents based on brain research, my heart sinks."

On that November day in Foley, Ala., William Bender pulled a stool up to a lectern and began reading to his fourth-grade boys from Gary Paulsen's young-adult novel "Hatchet." Bender's voice is deep and calm, a balm to many of his students who lack father figures or else have parents who, Bender says, "don't want to be parents. They want to be their kids' friends." Bender paused to ask one of his boys, who said he was feeling sick, "Are you going to make it, brother?" Then he kept reading. " 'The pain in his forehead seemed to be abating. . . .' What's *abating*, gentlemen?" The protagonist of "Hatchet" survives a plane crash and finds himself alone by an insect-infested lake. Bender encouraged his boys to empathize. They discussed how annoying it is, when you're out hunting, to be swarmed by yellow flies.

Meanwhile, in Michelle Gay's fourth-grade class, the girls sang a vigorous rendition of "Always Sisters" and then did a tidy science experiment: pouring red water, blue oil and clear syrup into a plastic cup to test which has the greatest density, then confirming their results with the firsthand knowledge that when you're doing the dishes after your mother makes fried chicken, the oil always settles on top of the water in the sink.

Foley, population 11,300, is 10 miles from the Gulf Coast. Fifty-seven percent of Foley Intermediate's students are white, 24 percent are black and 17 percent are Latino; 70 percent receive free or reduced-price lunches each day. In the first year of Foley's single-sex program, a third of the kids enrolled. The next year, two-thirds signed up, and in its third year 87 percent of parents requested the program. Principal Mansell reports that her single-sex classes produce fewer discipline problems, more parental support and better scores in writing, reading and math. She does, however, acknowledge that her data are compromised, as her highest-performing teachers and her most-motivated students have chosen single-sex.

In his books and frequent media appearances, Sax holds up Foley Intermediate as an example of his theories put to good use. In his second book, "Boys Adrift: The Five Factors Driving the Growing Epidemic of Unmotivated Boys and Underachieving Young Men," Sax credits Bender for helping focus a boy who was given a wrong diagnosis of attention-deficit disorder by telling him that his father, who had left the family, would be even less likely to return if all his mother had to report was the boy misbehaving in school. Sax also goes out of his way to note that Bender had this conversation with the boy "shoulder to shoulder," not "face to face." "Just remember this rule of thumb," Sax tells readers: "A good place to talk with your son is in your car, with you driving and your son in the passenger seat."

Sax used to say that he was "uniquely unqualified to lead the single-sex public education movement," since, for among other reasons, he had never been a teacher. Now, he no longer says that, and he maintains that a school's teachers and staff need only 14 hours of training — two 7-hour days with him — to prepare to switch from coeducation to single-sex. Sax is 48, square-jawed and sturdily built, with a thick shag of side-parted brown hair and a relentless intellect and tireless charisma that leave even his critics exhausted and impressed. In the 1980s he earned an M.D. and Ph.D. (in psychology) from the University of Pennsylvania. Last year, he gave about 50 seminars and lectures on sex differences in children. The first time I met him, he

was swinging through San Francisco to give a series of such talks at the Katherine Delmar Burke School, a private all-girls school. Speaking to a group of sixth graders, Sax explained his theory that girls' hearing ability is much better than boys', as is girls' sense of smell. The girls, just on the edge of puberty, sat utterly rapt, seeming to want to understand why their brothers, boy cousins, cute skater-dude neighbors and fathers were so weird. A few weeks after the lecture, Sax sent me a packet of color photocopies of thank-you notes he had received from the girls. One, from a girl with two fathers, read: "Dr. Sax, Thank you so much for coming to Burkes. . . . I had a smell in my room and my Dads couldn't smell it but I could. I thought I was going crazy. It ends up there was a dead rat in the wall. Hope you come back soon."

Sax comes off as a true believer and describes his conversion experience like this: In 2000, one of his patients, a 12-year-old boy, came to his medical office. For several years before then, the boy had been withdrawn, uninspired and on multiple medications, but he had recently made a big turnaround, which his parents credited to having enrolled him in an all-boys school. Upon hearing this, Sax said to the boy's mother, "With all due respect, I regard single-sex education as an antiquated relic of the Victorian Era." To which he says she replied, "With all due respect, Dr. Sax, you have no idea what you're talking about." After visiting a handful of single-sex schools, Sax threw himself into studying neurological differences between males and females, eventually focusing on how to protect boys from a syndrome he calls "failure to launch," which Sax often characterizes as caring more about getting a Kilimanjaro in Halo 3 than performing well in high school or taking a girl on a date. Among his early proposals was that boys should start kindergarten at age 6, a year later than girls, in order to ease the "sense of scholastic incompetence" that so many boys feel early on because they tend to develop later. Several friends quickly convinced Sax that American families would never go for this. So Sax started thinking it might be better for boys and girls to be in different classrooms.

Sax's official foray into single-sex public-school advocacy started in early 2002, when, he says, he applied for "a 501(c)(3) with the pretentious and improbable name of the National Association for Single-Sex Public Education." In its first few years, N.A.S.S.P.E. didn't see much action. Then, in 2004, he was invited to give a seminar in Foley. His appearance there led to a workshop in Wilcox County, Ala., and over the next few years, Sax says, "things started to mushroom." Sax estimates that, at present, 300 of the 360 single-sex public school programs in the country "are coming at this from a neuroscience basis." Either he or one of N.A.S.S.P.E.'s board members has been in touch with about half the programs.

David Chadwell, one of Sax's disciples and the coordinator of Single- Gender Initiatives at the South Carolina Department of Education, explained to me the ways that teachers should teach to gender differences. For boys, he said: "You need to get them up and moving. That's based on the nervous system, that's based on eyes, that's based upon volume and the use of volume with the boys." Chadwell, like Sax, says that differences in eyesight, hearing and the nervous system all should influence how you instruct boys. "You need to engage boys' energy, use it, rather than trying to say, No, no, no. So instead of having boys raise their hands, you're going to have boys literally stand up. You're going to do physical representation of number lines. Relay races. Ball tosses during discussion." For the girls, Chadwell prescribes a focus on "the connections girls have (a) with the content, (b) with each other and (c) with the teacher. If you try to stop girls from talking to one another, that's not successful. So you do a lot of meeting in circles, where every girl can share something from her own life that relates to the content in class."

While Sax rejects the notion that he is a gender essentialist — according to Sax's own definition, "a gender essentialist is a derogatory term that arose in the 1970s to define someone who is an idiot, or a Republican, or both, who does not understand that gender is socially constructed" — he does say that "human nature is gendered to the core" and that "all that happens when you take a toy gun away from your son and give him a doll instead is that you tell him, 'I don't like the person that you are and I wish you were more like your sister, Emily.' " He opens "Why Gender Matters" with two cautionary tales: one about a boy who starts kindergarten

at age 5, is given a diagnosis of A.D.H.D. and depression and ends up on a three-drug cocktail of Adderall, Wellbutrin and clonidine; the other about a girl who transforms “from chubby wallflower to outgoing socialite” in middle school, seems to have it all — friends, academic success — and then shocks her parents by overdosing on Vicodin and Xanax. The two anecdotes are capsule versions of the boys’ and girls’ crises, and depending on one’s point of view, Sax effectively either addresses or exploits these parental concerns. After presenting the Adderall-doped grammar-school boy and the suicidal middle-school girl, Sax offers a possible cause of these sad stories. “The neglect of gender in education and child-rearing has done real harm.” These tragedies “might have been averted if the parents had known enough about gender differences to recognize what was really happening in their child’s life.”

Among the differences Sax notes between boys and girls: Baby boys prefer to stare at mobiles; baby girls at faces. Boys solve maze puzzles using the hippocampus; girls use the cerebral cortex. Boys covet risk; girls shy away. Boys perform better under moderate stress; girls perform worse. Many academics and progressives tend to find Sax’s views stereotyped and infuriating, yet Sax does not seem to mind. Sax told me that in 2005, he delivered a lecture at a conference at the University of Alaska in Fairbanks. When the next speaker, Michael Younger, of Cambridge University, took the lectern, Sax says Younger threw down his speech and said, “I’m going to depart from my prepared remarks because I’m so annoyed by the sexist rubbish I just heard from Dr. Sax. Dr. Sax is trying to tell us that boys draw action and girls draw stasis. He might as well have said: ‘Boys are active, girls are passive. Boys should go out and have jobs, girls should stay home and have babies.’ ” While Sax, a gadfly, enjoys telling this story, Younger calls it “a fiction,” though he does concede “that certain aspects of Sax’s work suggest an essentialism about boys and girls which is not borne out by reality as exposed in our own research.”

A deluge of data has emerged in recent years detailing how boys and girls have different developmental trajectories and different brains. Sax has made a role for himself popularizing this work, though it’s not yet clear what the research means or whether there are implications for single-sex education. For instance, among neuroscientists, motor skills are often used as proxies for assessing cognitive skills and social and emotional control in younger children. As Martha Denckla, director of the Developmental Cognitive Neurology Clinic at Kennedy Krieger Institute in Maryland, explained to me: “Looking at normal motor development in boys and girls — the ability to balance, to hop, to use your feet, to use your fingers and your hands — as a group, 5-year-old girls look almost completely the same as 6-year-old boys. The same is also true for anything having to do with speed of output: for example, how quickly you answer a question. Maybe you know the answer, but you just can’t prepare your mouth to form the words.” The gender gap in motor development shrinks through grammar and middle schools, Denckla says, disappearing once everyone has gone through puberty, around age 15. Yet Denckla doesn’t see any need for single-sex public education; she thinks mixed-grade K-1, 1-2 and 2-3 classrooms are a better way to deal with the developmental differences among school-age kids.

Scans of boys’ and girls’ brains over time also show they develop differently. Analyzing data from the largest pediatric neuro-imaging study to date — 829 scans from 387 subjects ages 3 to 27 — researchers from the National Institute of Mental Health found that total cerebral volume peaks at 10.5 years in girls, four years earlier than in boys. Cortical and subcortical gray-matter trajectories peak one to two years earlier in girls as well. This may sound very significant, but researchers claim it means nothing for educators, or at least nothing yet. “Differences in brain size between males and females should not be interpreted as implying any sort of functional advantage or disadvantage,” the N.I.M.H. paper concludes. Not one to be deterred, Sax invited Jay Giedd, chief of brain imaging at the Child Psychiatry Branch at N.I.M.H., to give the keynote address at his N.A.S.S.P.E. conference in 2007. Giedd spoke for 90 minutes, but made no comments on schooling at all.

One reason for this, Giedd says, is that when it comes to education, gender is a pretty crude tool for sorting minds. Giedd puts the research on brain differences in perspective by using the analogy of height. “On both the brain imaging and the psychological testing, the biggest differences we see between boys and girls are about one standard deviation. Height differences between boys and girls are two standard deviations.” Giedd suggests a thought experiment: Imagine trying to assign a population of students to the boys’ and girls’ locker rooms based solely on height. As boys tend to be taller than girls, one would assign the tallest 50 percent of the students to the boys’ locker room and the shortest 50 percent of the students to the girls’ locker room. What would happen? While you’d end up with a better-than-random sort, the results would be abysmal, with unacceptably large percentages of students in the wrong place. Giedd suggests the same is true when educators use gender alone to assign educational experiences for kids. Yes, you’ll get more students who favor cooperative learning in the girls’ room, and more students who enjoy competitive learning in the boys’, but you won’t do very well. Says Giedd, “There are just too many exceptions to the rule.”

Despite a lack of empirical evidence, a cottage industry has emerged working the “boys and girls are essentially different, so we should educate them differently” angle. Several advocates like Sax have been quite successful commercially, including Michael Gurian, a family therapist, who published the best-selling “The Wonder of Boys” in 1996, a work he has since followed up with 15 more, including “Boys and Girls Learn Differently!” Through the Gurian Institute, he provides trainings to teachers, “showing the PET scans, showing the Spect scans” (a Spect scan is a nuclear imaging test that shows how blood flows through tissue), “teaching how the male and female brain are different,” Gurian told me. Like Sax, Gurian speaks authoritatively, yet both have been criticized for cherry-picking studies to serve their views. For instance, Sax initially built his argument that girls hear better than boys on two papers published in 1959 and 1963 by a psychologist named John Corso. Mark Liberman, a linguistics professor at the University of Pennsylvania, has spent a fair amount of energy examining the original research behind Sax’s claims. In Corso’s 1959 study, for example, Corso didn’t look at children; he looked at adults. And he found only between one-quarter and one-half of a standard deviation in male and female hearing thresholds. What this means, Liberman says, is that if you choose a man and a woman at random, the chances are about 6 in 10 that the woman’s hearing will be more sensitive and about 4 in 10 that the man’s hearing will be more sensitive. Sax uses several other hearing studies to make his case that a teacher who is audible to boys will sound too loud to girls. But Liberman says that if you really look at this research, it shows that girls’ and boys’ hearing is much more similar than different. What’s more, the sample sizes in those studies are far too small to make meaningful conclusions about gender differences in the classroom. The “disproportion between the reported facts and Sax’s interpretation is spectacular,” Liberman wrote on his blog, Language Log. “Dr. Sax isn’t summarizing scientific research; he’s making a political argument,” he wrote in an e-mail message. “The political conclusion comes first, and the scientific evidence — often unrepresentative or misrepresented — is selected to support it.”

One of Sax’s core arguments is that trying to teach a 5-year-old boy to read is as developmentally fraught as trying to teach a 3 1/2-year-old girl and that such an exercise often leads to a kid hating school. This argument resonates with many teachers and parents, who long for the days when kindergarten meant learning how to stand in line for recess, not needing to complete phonics homework. Yet public schools are beholden to state standards, and those standards require kindergartners to learn to read. As a result, even leaders of single-sex public schools, like Jabali Sawicki, the principal of the all-boys Excellence Charter School in the Bedford-Stuyvesant neighborhood of Brooklyn, are using some of what Sax has to offer while quietly refuting other claims.

Sawicki is 30, lanky and mocha-skinned, with an infectious energy. He grew up in a tough part of San Francisco with a single mother who managed to get her son a scholarship for middle school at a private all-boys school. From there he went to a private high school and then on to Oberlin College. The Excellence

School is part of Uncommon Schools, a small network of charter schools. Housed in a gracious building on a modest street, Excellence currently teaches children in kindergarten through Grade 4, and will add a grade each year for the next four years, up to Grade 8. Sawicki's office occupies an empty classroom slated to be overtaken by students as the school grows. There, he told me that educating lower-class black boys is "the new civil rights movement." He then walked me down the hall to one of his kindergarten classrooms, where a sign on the door read "Fordham, Class of 2024."

"Jacob," said Sawicki, folding himself into a tiny chair and pointing to a line in a workbook, "will you read that for our guest?"

Jacob, who is 5, straightened his tiny tie under his green cardigan and used his index finger to track his place on the page. "A rat and a rabbit went down the slide."

"Thank you," said Sawicki. "And can you tell our guest what you like about the Excellence School?"

"I like that I get to wear a sweater with buttons," he said, glancing down at his uniform. "And I like that I'm going to college."

While there's some dispute over whether there's an ongoing education crisis for white, middle-class boys, there's no doubt that public schools are failing poor minority students in general and poor minority boys in particular. Despite six years of No Child Left Behind, the achievement gaps between rich and poor students and white and black students have not significantly narrowed. "People are getting desperate" is how Benjamin Wright, chief administrative officer for the Nashville public schools, described the current interest in single-sex education to me. "Coed's not working. Time to try something else."

Wright was one of the first principals in the country to address the racial and socioeconomic achievement gaps by separating boys from girls. In 1999, he was sent to the failing Thurgood Marshall Elementary School, in Seattle, to try to turn the place around. One of the first things he noticed was that three boys were getting suspended for every girl, "and for the most ridiculous things in the world — a boy would burp, or he'd pass gas, or a girl would say, 'He hit me.' " Nationwide, boys are nearly twice as likely as girls to be suspended, and more likely to drop out of high school than girls (65 percent of boys complete high school in four years; 72 percent of girls do). Boys make up two-thirds of special-education students. They are 1.5 times more likely to be held back a grade and 2.5 times more likely to be given diagnoses of A.D.H.D. So Wright met with his fourth-grade teachers and recalls telling them, "O.K., here's what we're going to do: how about *you* take all the boys and *you* take all the girls?" Wright says that in 2001, after Marshall's first year in a single-sex format, the percentage of boys meeting the state's academic standards rose from 10 percent to 35 percent in math and 10 percent to 53 percent in reading and writing.

Wright attributes this both to the insights of "brain researchers" like Sax and to what he calls "the character piece" — giving children a positive sense of themselves as students — which he says is easier to address in a single-sex setting. "*Nobody cares about me, nobody really wants me* — an African American or a Latino boy will tell you that in a hurry," Wright told me when we spoke in January. "Or a Vietnamese or a Cambodian boy, if you're in the right neighborhood. *Don't nobody care*. Teachers need to understand when it's time to stop teaching the content and start teaching the context."

Not all schools see great results from switching to a single-sex format. After transforming the Thurgood Marshall School in Seattle, Wright moved to Philadelphia to work on the district's single-sex programs, and the results were rather modest, a fact Wright attributes to working both with middle- and high-school students and with less-engaged teachers. Other districts have started single-gender programs only to shut them down, as major logistical headaches outweighed the small academic gains. Lori Clark, principal at

Jefferson Leadership Academies in Long Beach, Calif., which in 1999 became the first public middle school in the country to convert to a single-gender format, is in the process of reverting her school to coed. “We just didn’t get the bang for the buck we’d been hoping for with our test scores,” Clark told me. “Our master schedule is like one of those old Rubik’s cubes. It’s hard enough to make sure each kid gets *this* level English class and *that* level math class — and then we need to account for if that student is a boy or a girl? We just couldn’t have our hands tied like that.”

When Sawicki first took the job at Excellence, he attended conferences given by Sax and others on single-sex education, and at all of them he’d stand up and say: “Tell me what is it that I should do? What’s the magic dust that I should sprinkle?” Now, four years into the job, he’s following Wright’s lead, trying to take the best of all models. At Excellence, in a third-grade room, the teacher Roberto de Leon roused his students into calling out the two-dimensional sides of three-dimensional shapes while throwing around a big purple eyeball. But the Excellence school couples their games with serious discipline. By 7:30 each morning, 220 boys walk through the school’s heavy double doors, each dressed, in the terminology of the school, as a professional scholar: in black sneakers, dress pants, a white shirt, a green cardigan, a belt and a tie. If a child arrives at 7:31 a.m., his parents will receive a call at 5:45 the next morning to make sure that boy will be at school on time. Excellence is a charter school — meaning the school is publicly financed but has been freed from some of the rules that apply to other public schools, in exchange for promising to produce certain results. Its halls are silent from 7:50 to 10:30 a.m. each day. “The school’s sacred time,” Sawicki explains. “Right now we have 220 boys who are reading. Just a few blocks that way” — he pointed toward Crown Heights, a nearby section of Brooklyn — “you’ve got 220 boys who are doing something that’s not going to get them to college.”

After meeting Jacob, Sawicki walked me over to a room labeled “University of North Carolina, 2024,” where the kindergarten teacher Trisha Bailey was sitting with nine boys in a reading circle. Part of Excellence’s strategy is to keep boys too busy to fall out of line. “Friends, who’s sitting tallest?” Bailey said in her brightest voice. “Who has a smile on his face? Whose feet are flat on the floor? O.K., here were go.” For the next two minutes, Bailey led the boys in a simple phonics exercise, sounding out together cat, *kitten, kiss*. Then she said, as animated as the host of “Blues Clues”: “Good job for you! Good job for me! Good job everybody! O.K., next.”

Under Bailey’s guidance, the boys did two more pages of phonics, and then she jumped to her feet and announced: “Stand up if you need to get your sillies out! Put your hands on your belly. Ha . . . ha, ha . . . ha, ha, ha. Now get ready for a blastoff with me!” Bailey counted down from 10 to 1, crouched down into a squat alongside the boys and then exploded into the air. Then she promptly took her seat. “Sit up tall, fold your hands, three-two-one, here we go.” Bailey held up a page and put her index finger on a red dot. “Boys, let’s read together now. *This . . . is . . . my . . . kitten*.”

The Young Women’s Leadership School in Harlem is widely considered the birthplace of the current single-sex public school movement. This position of eminence stems from both its early beginnings and its success: since opening in 1996, every girl in every senior class at T.Y.W.L.S. has graduated and been accepted at a four-year college.

T.Y.W.L.S. occupies the top five floors of a commercial building in Harlem, on 106th Street near Lexington Avenue. Most of the girls come from the neighborhood, where they walk home so quickly that they often breeze by their own mothers before registering whom they’ve passed. One afternoon in January, Dalibell Ferreira, a senior, sat drinking a soda in the college counselor’s office, where she sometimes stays until 8 p.m. because she finds her own home distracting. Ferreira is tall, poised, with wide-set eyes and her hair neatly pulled back around her fine Dominican face. When she graduates, she wants “to go to Wesleyan and study

abroad, then travel, and then work for Unicef." When she entered T.Y.W.L.S. in the seventh grade, she mostly liked that the linoleum floor was so clean she could see her own face reflected on it. Then she started appreciating that people wouldn't snicker, "Oh, she thinks she's so smart" when she raised her hand in class. Then one day last spring, on the way home from a friend's house, Ferreira ran into a classmate from elementary school who was pushing a stroller and also pregnant. "I know that girl is smart, very smart, but now she just hangs around the block," Ferreira told me. "I want to be bigger in life. Maybe that girl had dreams, too, but you can just see: the lights have gone out in her face."

T.Y.W.L.S. was founded by Ann Rubenstein Tisch, wife of Andrew Tisch, the co-chairman of the Loews Corporation. Ferreira's is exactly the story Tisch, a former correspondent for NBC Network News, hoped her students would someday tell. Tisch first got the idea for a public all-girls school while on assignment in Milwaukee in the late '80s. She was interviewing a 15-year-old at a public high school that had just opened a nursery so teenage moms could come back and finish their degrees. "Where do you see yourself in 5 years?" Tisch asked the young mother. The mother started to cry. "I said to myself: 'She's stuck, she knows she's stuck. And she's impacting three generations: her mother, her child and herself.' We need to get these kids on a completely different path, a path that wealthy girls and parochial-school girls and yeshiva girls are offered. Don't you think that might make a difference?"

Tisch is 53 years old, with reddish hair and a strong, warm face. One of the first things she did when she got serious about trying to start an all-girls public school was to hire a lawyer, George Shebitz, to explore the legality of a single-sex school. Tisch started visiting elite Manhattan all-girls private schools like Brearley and Spence, and once she had a vision of girls in blue-and-white uniforms sitting in circles around tables instead of at rows of desks, Tisch met with Evelyn Castro, who was then the superintendent of New York City's District 4, the district that encompasses part of East Harlem and one known for its innovation. She then spoke to Rosemary Salomone, the legal scholar at St. John's. Salomone knew of a 1994 report by the New York City Department of Education showing a gender gap in math and science scores, which was particularly notable among African American and Hispanic females. Salomone knew that Title IX prohibits schools that receive Federal funds from discriminating on the basis of sex, but she explained to Tisch that this gender gap could work to her advantage.

As the Supreme Court would rule in June 1996, just three months before T.Y.W.L.S. opened, the legality of single-sex schools depends on context. In United States v. Virginia, a case regarding females' exclusion from the all-male Virginia Military Institute, the justices found that the male bastion was in fact violating the equal-protection clause of the 14th Amendment, and that the state of Virginia's proposal to open an all-girls school wasn't a sufficient remedy because V.M.I. gave its students not just a good education but powerful connections within Virginia's military and political elite. Justice Ruth Bader Ginsburg, who earlier in her career had been a founder of the A.C.L.U. Women's Rights Project (a group that has been active in suing single-sex public schools), wrote the majority opinion, composing what some people consider a condensation of feminist thinking up to 1996. Ginsburg's opinion states that in some contexts, single-sex schools might be legal, as long as those schools worked to "dissipate, rather than perpetuate, traditional gender classifications." "The two sexes are not fungible," Ginsburg wrote, quoting a 1946 decision; the physical differences between the sexes are "enduring" and "cause for celebration." Yet, Ginsburg warned, those differences cannot be used to place "artificial constraints on individuals' opportunity."

News of an all-girls school opening in Harlem hit the press in July 1996 and started a firestorm of arguments about whether single-sex public education was illegal, regressive, anti-feminist and a nonanswer to the problem of how to educate both boys and girls well in school. As Salomone recalls, T.Y.W.L.S. "divided the feminist community right down the middle." Later that year at Fordham Law School, Salomone debated the merits of single-sex public education against Anne Conners, then the president of NOW-N.Y.C. According to

Salomone, Conners evoked Brown v. Board of Education. Salomone countered that race is substantially different from gender, and, more important, that a child would end up at T.Y.W.L.S., or another single-sex school, only by parental choice. After the debate, Salomone says she asked Conners if she had lost members over the issue and that Conners suggested that she had. Salomone told her, “Well, you lost me.”

Thanks to Tisch and the money she raises, T.Y.W.L.S. enjoys some significant advantages over an ordinary urban public school, most notably a health-and-wellness curriculum and a superheroic college counselor, Chris Farmer, who starts taking the girls on field trips to Columbia University in seventh grade and who once drove a student’s entire Ghanaian family, Islamic music blaring, from Harlem to Hobart and William Smith Colleges in upstate New York so the father would feel comfortable enough let his daughter attend. Tisch’s connections also make for priceless opportunities: Bill Clinton and Katie Couric, among other megawatt notables, have visited the school. But it was inside Emily Wylie’s A.P. English class where the real social value of single-sex teaching was on display. Ferreira, among 20 other seniors, sat in a circle discussing “Pride and Prejudice.” Wylie asked the girls to call out which characters had which vices and virtues. A serious discussion of whether lust — Lydia’s lust — was a vice or virtue ensued.

“She’s following her passions!”

“At least she’s not sleeping with folks for money.”

Wylie regretted to inform her girls that lust is one of the seven deadly sins, which prompted the thoroughly modern question: “But how is lust bad?”

Wylie says she believes she is a better teacher, and her students are better students, because they’re in a desexualized — or at least less-sexualized — environment. “Sure,” she says, “when they take pictures, they often present their backsides first. But I think I’m giving girls a better education than I could have if there were guys in the room. I’m freer. I’m more able to be bold in my statements. When I teach poetry and I talk about the sex in poetry I don’t need to be worried about the boy in the room who is going to chuckle over the thing he did with the girl last week and embarrass her. Which happened more than once in my last coed environment.”

Nearly everyone at T.Y.W.L.S. acknowledges that often parents’ most pressing concern when enrolling their 11-year-old daughters is sheltering those girls from sexualized classrooms and sexualized streets. “Harlem’s a very intense environment,” says Drew Higginbotham, T.Y.W.L.S.’s assistant principal, who lives in the neighborhood. “You’re constantly needing to prove yourself physically, to prove yourself sexually. Parents, when they come to our school, they sort of exhale deeply. You can hear them thinking to themselves, I can see my daughter here and she’s going to be O.K. for six hours a day.” Sax is not above or beyond this kind of thinking, either. In fact, after a nearly-two-hour conversation filled with scientific jargon and brains, he told me, perhaps wishfully, that really the most important reason to send a child to a single-sex high school was that those kids still go on dates. “Boys at boys’ schools like Old Farms in Connecticut, or Saint Albans in Washington, D. C., will call up girls at Miss Porter’s in Connecticut, at Stone Ridge in Maryland, and they will ask the girl out, and the boy will drive to the girl’s house to pick her up and meet her parents. You tell kids at a coed school to do this, and they’ll fall on the floor laughing. But the culture of dating is much healthier than the culture of the hookup, in which the primary form of sexual intimacy is a girl on her knees servicing a boy.”

In the past few years Tisch’s Young Women’s Leadership Foundation has opened schools in the Bronx and Queens, as well helping start ones in Chicago, Philadelphia, Dallas and Austin. Tisch wants to be careful about not overextending her network — “we don’t want to become Mrs. Fields or Benetton” — but she says she also feels an obligation from her success. Last year, 2,100 students applied for the three open ninth-grade

spots in the Harlem school. Many other schools make inquiries about how they might replicate T.W.Y.L.S.'s success. This coming year, for the first time, Tisch plans on holding her own conference on single-sex public education. Though she's meticulously circumspect about not disparaging Sax, her actions suggest that she is aware that if she doesn't engage with the many districts interested in starting up single-sex programs, there's a chance that Sax will run away with the movement.

Education scholarship has contributed surprisingly little to the debate over single-sex public education. In 2005, the United States Department of Education, along with the American Institute for Research, tried to weigh in, publishing a meta-analysis comparing single-sex and coed schooling. The authors started out with 2,221 citations on the subject that they then whittled down to 40 usable studies. Yet even those 40 studies did not yield strong results: 41 percent favored single-sex schools, 45 percent found no positive or negative effects for either single-sex or coed schools, 6 percent were mixed (meaning they found positive results for one gender but not the other) and 8 percent favored coed schools. This meta-analysis is part of a larger project by the Department of Education being led by Cornelius Riordan, a Providence College professor. He explained to me that such muddled findings are the norm for education research on school effects. School-effects studies try to answer questions like whether large schools are better than small schools or whether charter schools are better than public schools. The effects are always small. So many variables are at play in a school: quality of teachers, quality of the principal, quality of the infrastructure, involvement of families, financing, curriculum — the list is nearly endless. Riordan says, "You're never going to be able to compare two types of schools and say, 'The data very strongly suggests that schools that look like a are better than schools that look like *b*.' "

That certainly appears to be the case for single-sex schools. The data do not suggest that they're clearly better for all kids. Nor do they suggest that they're worse. The most concrete findings from the research on single-sex schools come from studies of Catholic schools, which have a long history of single-sex education, and suggest that while single-sex schools may not have much of an impact on the educational achievement of white, middle-class boys, they do measurably benefit poor and minority students. According to Riordan, disadvantaged students at single-sex schools have higher scores on standardized math, reading, science and civics tests than their counterparts in coed schools. There are two prevailing theories to explain this: one is that single-sex schools are indeed better at providing kids with a positive sense of themselves as students, to compete with the antiacademic influences of youth culture; the other is that in order to end up in a single-sex classroom, you need to have a parent who has made what educators call "a pro-academic choice." You need a parent who at least cares enough to read the notices sent home and go through the process of making a choice — any choice.

As T.Y.W.L.S. let out on a Friday in January and the girls spilled onto 106th Street, one such parent, a man in saggy jeans and a black parka, walked up the sidewalk clutching his daughter's dog-eared report card and hoping to secure her a spot for next year. "This where the school at?" he asked a security guard. The engagement of parents like this may be a major part of the success of single-sex public education. These schools are popular with many parents, who are happy to have an option that has long been available in private and parochial schools. And they are also attractive to teachers and administrators, who are offered a relatively easy and inexpensive way to try to improve some of the intractable problems in public education, especially for disadvantaged students.

But schools, inevitably, present many curriculums, some overt and some subtle; and critics argue that with Sax's model comes a lesson that our gender differences are primary, and this message is at odds with one of the most foundational principles of America's public schools. Given the myriad ways in which our schools are failing, it may be hard to remember that public schools were intended not only to instruct children in reading and math but also to teach them commonality, tolerance and what it means to be American. "When you

segregate, by any means, you lose some of that," says Richard Kahlenberg, a senior fellow at the Century Foundation. "Even if one could prove that sending a kid off to his or her own school based on religion or race or ethnicity or gender did a little bit better job of raising the academic skills for workers in the economy, there's also the issue of trying to create tolerant citizens in a democracy."

Elizabeth Weil is a contributing writer for the magazine. Her most recent article was about when a child should start kindergarten.